

Docket No. 05-0407
Quality Exhibit 5. Attachment 5

**Supplemental Specifications and Recurring Special Provisions, adopted March 1, 2005, Check
Sheet #17**

05-0407

Supplemental Specifications and Recurring Special Provisions

Adopted March 1, 2005



Illinois Department of Transportation

— Quality Exhibit 5, Attachment 5 —

CHECK SHEET #17

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
BITUMINOUS SURFACE REMOVAL (COLD MILLING)

Effective: November 1, 1987
Revised: October 15, 1997

Description. This work shall consist of milling and planing materials from the existing pavement to remove wheel lane ruts and to produce a pavement surface texture consisting of a uniform pattern of discontinuous longitudinal striations interspersed on an otherwise flat surface. The cold milled salvaged aggregate resulting from this operation shall become the property of the Contractor.

Equipment. The machine used for milling and planing shall be a self-propelled grinding machine. The grinding machine shall be capable of accurately and automatically establishing profile grades by referencing from an independent grade reference control meeting the requirements of Article 1102.03 of the Standard Specifications and shall have a positive means for controlling cross slope elevations. It shall also have an effective means for removing excess material from the surface and for preventing dust resulting from the operation from escaping into the air. The machine used for milling and planing the pavement shall have a 3.6 m (12 ft) wide drum at least 710 mm (28 in.) in diameter.

The cutting teeth used in the milling operation shall be the GTE AM 722, or an approved equivalent. When the teeth become worn so they will not produce the required surface texture, they shall be changed at the same time (as a unit). Occasionally, individual teeth may be changed if they lock up or break, but this method shall not be used to avoid changing the set of teeth as a unit.

The moldboard shall be straight, true, and free of excessive nicks or wear, and it shall be replaced as necessary to uniformly produce the required surface texture.

CONSTRUCTION REQUIREMENTS

General. The temperature at which the work is performed, the nature and condition of the equipment, and the manner of performing the work shall be such that the milled and planed surface is not torn, gouged, shoved, or otherwise injured by the grinding operation. Sufficient cutting passes shall be made so all irregularities or high spots are eliminated. Surface tests will be made according to Article 407.09 of the Standard Specifications.

The Contractor shall remove any castings in the pavement and cover the holes prior to milling. The Contractor shall mill the amount as shown on the plans at the

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centerline, except when the milling at the outer edge of the surface exceeds 40 mm (1 1/2 in.); then the Contractor shall reduce the cut at the centerline to provide a maximum cut at the outer edge of the pavement of 40 mm (1 1/2 in.). It may also become necessary to reduce the slope of the crown from 15 mm/m (3/16 in./ft) to 10 mm/m (1/8 in./ft) to maintain a maximum cut at the outer edge of 40 mm (1 1/2 in.).

Surface Texture: Each tooth on the cutting drum shall produce a series of discontinuous longitudinal striations. There shall be 16 to 20 striations (tooth marks) for each tooth for each 1.8 m (6 ft) in the longitudinal dimension, and each striation shall be 43 ± 5 mm (1.7 ± 0.2 in.) in length after the area is planed by the moldboard. Thus the planed length between each pair of striations shall be 58 ± 5 mm (2.3 ± 0.2 in.). There shall be 80 to 96 rows of discontinuous longitudinal striations for each 1.5 m (5 ft) in the transverse dimension. The pattern of striations shall be such that a line connecting striations in adjacent rows shall form approximately a 70 degree skew angle with the roadway centerline. The areas between the striations in both the longitudinal and transverse directions shall be flat-topped and coplanar. The moldboard shall be used to cut this plane, and any time the operation fails to produce this flat plane interspersed with a uniform pattern of discontinuous longitudinal striations, the operation shall be stopped and the cause determined and corrected before recommencing.

A detail showing the required surface texture is included in the proposal. Although only one texture pattern is shown, other similar patterns of uniform discontinuous longitudinal striations interspersed on a flat plane may be approved by the Engineer.

Clean-up. After cold milling and planing a traffic lane, the pavement shall be swept by a mechanical broom to prevent recompaction of the cuttings onto the pavement. All loose material shall be removed from the roadway. Before opening the lane to traffic, it shall be cleaned with a mechanical broom to the satisfaction of the Engineer.

Method of Measurement.

- (a) Contract Quantities. The requirements for the use of contract quantities shall be according to Article 202.07(a) of the Standard Specifications.
- (b) Measured Quantities. Cold-milling and planing will be measured and the area computed in square meters (square yards) of surface.

Basis of Payment. The cold milling and planing will be paid for at the contract unit price per square meter (square yard) for BITUMINOUS SURFACE REMOVAL (COLD MILLING). Payment shall include variations in depth of cut due to rutting, superelevations, and pavement crown.